

## REMARKS

As a preliminary matter, Applicants appreciate the Examiner's indication that dependent Claims 30-33, 44 and 45 include allowable subject matter and would be allowed if amended into independent form and to overcome the §112, second paragraph, rejection. Although Applicants believe that the §112 rejection has been overcome for the reasons set forth below, Applicants have opted not to amend Claims 30-33, 44 and 45 into independent form at this time.

Claims 1-45 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse this rejection.

In response, the Examiner's attention is directed to page 11, lines 26-27 of the original Specification, which describes the "terminal part" as being "a part constituting the end section of a molecule or cross-like material." Further, Applicants' Figure 3B, and its description on page 18 (lines 11-17), show and discuss the "rising" terminal part 34. Thus, in light of the Specification and Drawings, Applicants respectfully submit that the claims are clear for the purposes of 35 U.S.C. §112, second paragraph, and Applicants respectfully request the withdrawal of this rejection of Claims 1-45.

Claims 1, 3, 8, 10, 12, 14, 22, 24, 26, and 28 stand rejected under 35 U.S.C. §103 as being unpatentable over United States Patent No. 5,307,190 to Wakita et al. in view

of United States Patent No. 5,496,497 to Takiguchi et al. Applicants respectfully traverse this rejection.

Applicants respectfully submit that the cited references fail to disclose or suggest a liquid crystal panel that includes, *inter alia*, a liquid crystal layer that includes “an adhered cross-linked structural part, which is a cross-linked structural part adhered to a liquid crystal layer contacting surface and a rising terminal part, which is a terminal part rising from the liquid crystal layer contacting surface,” as defined in independent Claim 1. One example of such features is shown in Figure 3B, which includes “adhered cross-linked structural parts” 33 and “rising terminal parts” 34.

The Examiner correctly acknowledged that the Wakita et al. reference fails to disclose or suggest these features. *See* February 9, 2006 Office Action, page 3, lines 4-8. Accordingly, the Examiner relied upon the Takiguchi et al. reference for these features, making specific reference to column 6, lines 40-41 of Takiguchi et al. However, the compounds disclosed in Takiguchi et al. at column 6 (lines 40-41) are not crosslinkable because they have only one double bond per molecule (at least two double bonds per molecule are necessary for forming cross-linking). To compare, in the present invention, although the presence of such a non-crosslinkable compound is permitted, the presence of a cross-linkable part is indispensable (*see* page 15, lines 20-28). Thus, the mere presence of the compounds disclosed at column 6 (lines 40-41) in Takiguchi et al. does not prove the presence of the claimed “adhered cross-linked structure” and “rising part.”

Further, although Takiguchi includes bifunctional acrylates (see column 9), their inclusion does not suggest an “adhered cross-linked structure” or a “rising part” because column 3 (lines 44-54) in Takiguchi et al. clearly state that the liquid crystal layer is of a phase separation type in which the liquid crystal phase is in the form of minute droplets that are dispersed in a polymer phase. That is, the alignment of the liquid crystal molecules is controlled by being encaged in the sea of a polymer. This is totally different from the way shown in Applicants’ Fig. 4(B) and its related explanation. Clear evidence of this is the difference of the concentrations of liquid crystals (70 wt. % at column 14, lines 13-14 in Takiguchi et al.; and 98 wt. % at page 39, line 9 in the present specification). Since the polymer is present in the vicinity of the liquid crystal layer contacting surface, the concentration is much less than that in the phase separation system. Thus, for these reasons, Applicants submit that the cited references do not disclose or suggest the claimed “adhered cross-linked structural part” or the “rising terminal part” of independent Claim 1. Accordingly, as all of the features of independent Claim 1, are not disclosed or suggested in the cited reference. Applicants respectfully request the withdrawal of this §103 rejection of independent Claim 1 and associated dependent Claims 3, 8, 10, 12, 14, 22, 24, 26 and 28.

Claim 4 stands rejected under 35 U.S.C. §103 as being unpatentable over Wakita et al. in view of Takiguchi et al. and further in view of United States Patent No. 6,198,375 to Wachi. Applicants respectfully traverse this rejection.

Claim 4 depends from independent Claim 1, and therefore includes all of the features of Claim 1, plus additional features. Accordingly, Applicants respectfully request that the §103 rejection of dependent Claim 4 under the combination of Wakita et al., Takiguchi et al. and Wachi be withdrawn considering the above remarks directed to independent Claim 1, and also because the Wachi reference does not remedy the deficiencies noted above, nor was it relied upon as such.

Claims 16 and 18 stand rejected under 35 U.S.C. §103 as being unpatentable over Wakita et al. in view of Takiguchi et al. and further in view of United States Patent No. 6,801,286 to Yamaguchi et al. Applicants respectfully traverse this rejection.

Claims 16 and 18 depend from independent Claim 1, and therefore include all of the features of Claim 1, plus additional features. Accordingly, Applicants respectfully request that the §103 rejection of dependent Claims 16 and 18 under the combination of Wakita et al., Takiguchi et al. and Yamaguchi et al. be withdrawn considering the above remarks directed to independent Claim 1, and also because the Yamaguchi et al. reference does not remedy the deficiencies noted above, nor was it relied upon as such.

Claim 20 stands rejected under 35 U.S.C. §103 as being unpatentable over Wakita et al. in view of Takiguchi et al. and further in view of United States Patent No. 6,055,031 to Lowe. Applicants respectfully traverse this rejection.

Claim 20 depends from independent Claim 1, and therefore includes all of the features of Claim 1, plus additional features. Accordingly, Applicants respectfully request

that the §103 rejection of dependent Claim 20 under the combination of Wakita et al., Takiguchi et al. and Lowe be withdrawn considering the above remarks directed to independent Claim 1, and also because the Lowe reference does not remedy the deficiencies noted above, nor was it relied upon as such.

Claims 2, 6, 7, 9, 17, 19, 23, 25, 27, 29, 37, 38, and 40-43 stand rejected under 35 U.S.C. §103 as being unpatentable over United States Patent No. 6,266,111 to Katoaka et al. in view of Takiguchi et al. Applicants respectfully traverse this rejection.

Applicants respectfully submit that the cited references fail to disclose or suggest a liquid crystal panel that includes, *inter alia*, a liquid crystal layer that includes “an adhered cross-linked structural part, which is a cross-linked structural part adhered to a liquid crystal layer contacting surface and a rising terminal part, which is a terminal part rising from the liquid crystal layer contacting surface,” as defined in independent Claims 2 and 7.

The Examiner correctly acknowledged that the Katoaka et al. reference fails to disclose or suggest these features. *See* February 9, 2006 Office Action, page 9, lines 1-5. Accordingly, the Examiner relied upon the Takiguchi et al. reference for these features, making specific reference to column 6, lines 40-41 of Takiguchi et al. However, for the same reasons discussed above when responding to the §103 rejection of Claims 1, 3, 8, 10, 12, 14, 22, 24, 26, and 28 under the combination of Wakita et al. and Takiguchi et al., Applicants respectfully request the withdrawal of this §103 rejection of independent Claims 2 and 7 and associated dependent Claims 6, 9, 17, 19, 23, 25, 27, 29, 37, 38, and 40-43.

Claim 5 stands rejected under 35 U.S.C. §103 as being unpatentable over Katoaka et al. in view of Takiguchi et al. and further in view of Wachi. Applicants respectfully traverse this rejection.

Claim 5 depends from independent Claim 2, and therefore includes all of the features of Claim 2, plus additional features. Accordingly, Applicants respectfully request that the §103 rejection of dependent Claim 5 under the combination of Katoaka et al., Takiguchi et al. and Wachi be withdrawn considering the above remarks directed to independent Claim 2, and also because the Wachi reference does not remedy the deficiencies noted above, nor was it relied upon as such.

Claims 11, 13, 15, and 34-36 stand rejected under 35 U.S.C. §103 as being unpatentable over Katoaka et al. in view of Takiguchi et al. and further in view of Wakita. Applicants respectfully traverse this rejection.

Claims 11, 13, 15 and 34-36 and 18 depend from either independent Claim 2 or from independent Claim 7, and therefore include all of the features of either Claim 2 or Claim 7, plus additional features. Accordingly, Applicants respectfully request that the §103 rejection of dependent Claims 11, 13, 15 and 34-36 and 18 under the combination of Katoaka et al., Takiguchi et al. and Wakita be withdrawn considering the above remarks directed to independent Claims 2 and 7, and also because the Wakita reference does not remedy the deficiencies noted above, nor was it relied upon as such.

Claims 21 and 39 stand rejected under 35 U.S.C. §103 as being unpatentable over Kataoka et al. in view of Takiguchi et al. and further in view of Lowe. Applicants respectfully traverse this rejection.

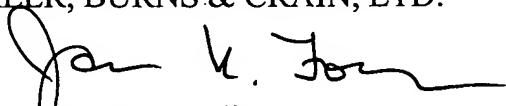
Claim 21 and 39 depend from either independent Claim 2 or from independent Claim 7, and therefore includes all of the features of either Claim 2 or Claim 7, plus additional features. Accordingly, Applicants respectfully request that the §103 rejection of dependent Claim 21 and 39 under the combination of Kataoka et al., Takiguchi et al. and Lowe be withdrawn considering the above remarks directed to independent Claims 2 and 7, and also because the Lowe reference does not remedy the deficiencies noted above, nor was it relied upon as such.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. Should the Examiner be of the opinion that a telephone conference would aid in the prosecution of the application, or that outstanding issues exist, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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